Attachment H

Proposal # 2001-E204 (Office Use Only)

PSP Cover Sheet (To be placed on the front of each proposal)

Proposal Title: Butte Creek/Sanborn Slough Bifurcation Upgrade Project

Applicant Name: California Waterfowl Association

Contact Name: Robert Capriola

Mailing Address: 132-b North Enright Ave. Willows, CA 95988

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Amount of funding requested $ 1,000,000

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost _____ Federal cost _____

Cost share partners? X **Yes** ___ **No**

Identify partners and amount contributed by each Anadromous Fish Restoration Program ($67,000)
Sacramento National Wildlife Refuge (USFWS- $1,000,000)

Indicate the Topic for which you *are* applying (check only one box). X NEXT PHASE FUNDING FOR EXISTING ECOSYSTEM RESTORATION PROJECT

- ☐ Natural Flow Regimes
- ☐ Nonnative Invasive Species
- ☒ Channel Dynamics/Sediment Transport
- ☒ Flood Management
- ☒ Shallow Water Tidal/ Marsh Habitat
- ☐ Contaminants
- ☐ Beyond the Riparian Corridor
- ☐ Local Watershed Stewardship
- ☐ Environmental Education
- ☐ Special Status Species Surveys and Studies
- ☐ Fishery Monitoring, Assessment and Research
- ☐ Fish Screens

What county or counties is the project **located** in? Colusa, Butte

What *CALFED* ecozone is the project located in? See attached list and indicate number. Be as specific as possible Butte Basin, Butte Sink (7.7)

Indicate the type of applicant (check only one box):

- ☐ State agency
- ☐ Public/Non-profit joint venture
- ☐ Local government/district
- ☐ University
- ☐ Other: _____
- ☐ Federal agency
- ☒ Non-profit
- ☐ Tribes,
- ☐ Private party

Indicate the primary species which the proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☒ Spring-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☒ **Fall-run** chinook salmon
- ☐ Delta smelt
- ☐ Longfin smelt
- ☐ Splittail
- ☒ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped **bass**
- ☐ White Sturgeon
- ☐ All chinook species
- ☒ Waterfowl and Shorebirds
- ☐ All anadromous salmonids
- ☒ Migratory birds
- ☐ American shad
- ☒ Other listed T/E species: Giant Garter Snake

Indicate the type of project (check only one box):

- ☐ Research/Monitoring
- ☐ Watershed Planning
- ☐ Pilot/Demo Project
- ☐ Education
- ☒ Full-scale Implementation

Is his a next-phase of an ongoing project? Yes X No___

Have y w received funding from CALFED before? Yes ___ No X

If yes, *list* project title and CALFED number_____

Have you received funding from CVPIA before? Yes X No___

If yes, list CVPIA program providing funding, project title and **CVPIA** number **(if applicable):**

AFRP Lower Butte Creek Project phase 1b Number 113328J024

By signing below, the applicant declares *the* following:

- The truthfulness of ail representations in heir proposal;
- The individual signing the form is entitled to submit he application on behalf of he applicant (if he applicant is an entity or organization); md
- The person submitting he application has read and understood he conflict of interest and confidentiality discussion in he PSP (Section **2.4)** and waives my and **all rights** to privacy and confidentiality of **he** proposal on behalf of he applicant, to he extent as provided in he Section.

M. Robert Mc.andress

Printed name of applicant

M. Robert McLaughlin

Signature of applicant

Executive Summary

Butte CreeWSanborn **Slough** Bifurcation Structure CALFED/CVPIA Request: **$ 1,000,000**

Applicant: California Waterfowl Association, **Tax** Identification Number: 94-1149574

Contact Rob Capriola 132-B North Enright Ave, Willows, CA 95988

Phone or fax: (530) 934-9182, e-mail: robcap@iieach.com

Participants and Collaborators: Bureau of Reclamation (BOR), CALFED, US Fish and Wildlife Service-Anadromous Fish Restoration Program (AFRP), Sacramento National Wildlife Refuge (SNWR), California Department of Fish and Game (CDFG), California Department of Water Resources (DWR), Ducks Unlimited Inc. (DU), Butte Sink Waterfowl Association (BSWA), Jones and Stokes Associates (JSA), Borcalli and Associates (BA), National Marine Fisheries Service (NMFS), Reclamation District 1004 (RD 1004), and Eric **A.** Foraker.

Type of Project: Restoration Action- Next Phase of Previously Funded Project

Applicability to CALFED and CWIA goals: The project objectives are consistent with the following Ecosystem Restoration Program Plan (ERPP) fish passage objective: ***"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek" (ERPP Volume II, page*** 272). The proposed project is also consistent with the ERPP high priority Stage 1 Action for Butte Creek ***"STAGE 1 ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens."*** *(ERPP **Volume II, page** 272).* The project objectives are also consistent objectives listed for Butte Creek in the Revised Draft Restoration Plan for the AFRP dated May 30, 1997: "Action #22: ***Establish operational criteria for Sanborn Slough Bifurcation***".

Project Objectives and Description: The Butte Creek/Sanborn Slough Bifurcation Structure Project is designed to improve fish passage for anadromous fish in Butte Creek, a tributary to the Sacramento River, while maintaining the viability of agriculture and managed wetlands in the Butte Sink and surrounding area. Butte Creek supports the largest population of spring-run chinook salmon (FT, SE) in the Central Valley and provides water for habitat used annually by millions of resident and migrating waterfowl and shorebirds. This project has evolved from work completed by local landowners, in cooperation with state and federal resource agencies, **as** part of the ***Lower Butte Creek Project.*** Since 1996, over $3,427,400 has been committed to planning and implementing the Lower Butte Creek Project including over $500,000 from AFRP and $750,000 from CALFED.

The scope of this proposal includes upgrading the high-flow spillway, installing remote operation hardware and software and monitoring the structure for two hydrologic cycles to establish operational criteria for fish passage. Preliminary engineering was completed under an AFRP contract through DWR. **Final** engineering design, permitting, and construction of a portion of the structure has already been completed by CWA under a grant from the Sacramento National Wildlife Refuge. Completion of this structure with CALFED or CVPIA funding is of the highest priority, and construction could begin as early as June 2001, pending funding availability. Ideally the entire project should be constructed during 2001 and monitoring conducted pre-and post-construction (2001-2003)

Monitoring and data collection will provide the data necessary to evaluate the effectiveness of the upgraded structure in reducing any fish passage problems at the site and improving water management capabilities. The null hypothesis to be tested is that there is no significant difference between the population of Butte Creek fish existing before the construction of fish passage improvements and after improvements have been completed. Spawning surveys and collection of juvenile fish during migration will be conducted as part of a long-term monitoring plan. The data collected at the site will also be used to establish operational criteria for the structure in order to maximize fish passage and water management efficiency. Spawning and juvenile surveys are being conducted annually to determine the population response to this and similar projects in the watershed.

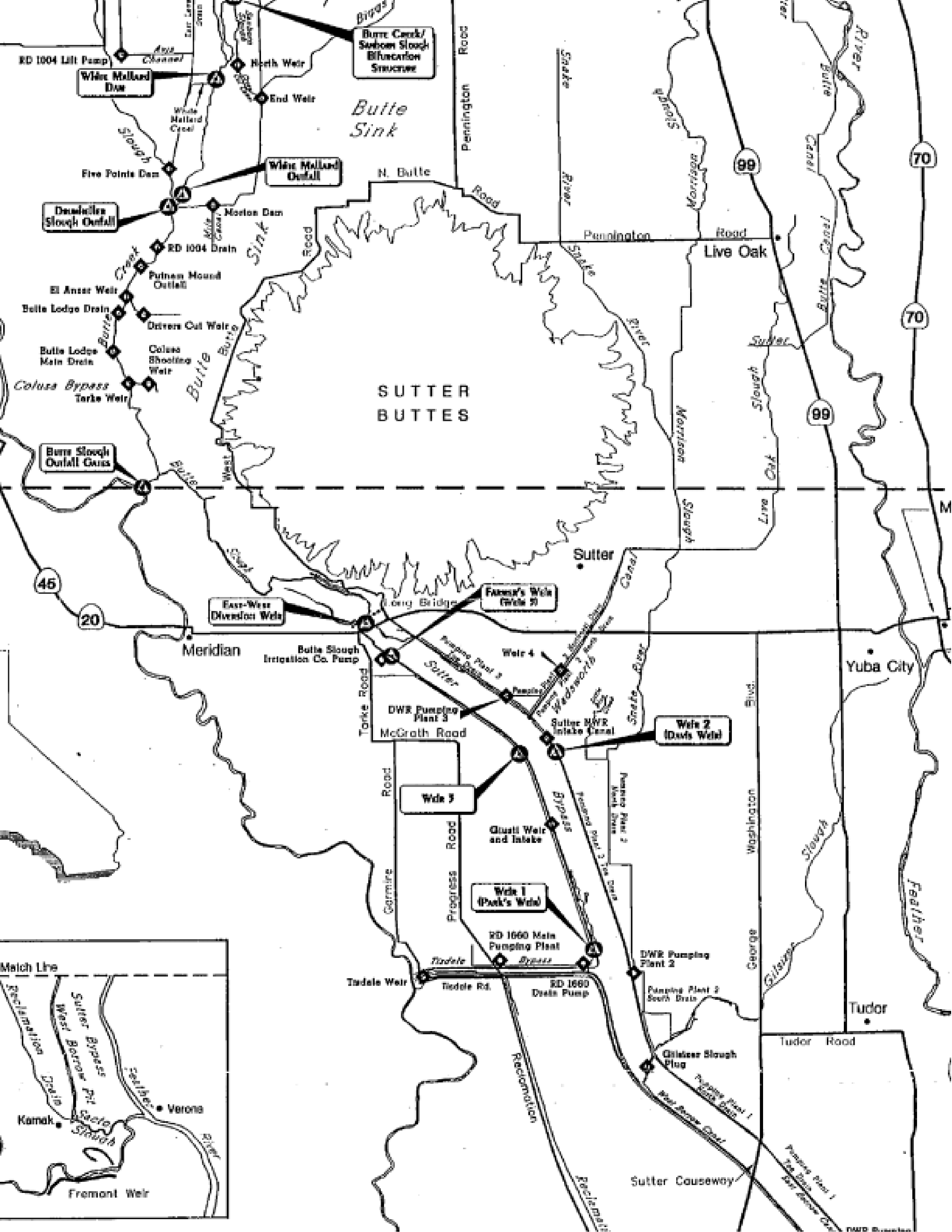
Project Description

1. Statement **of** the problem

a. Problem: Butte Creek hosts the single largest remaining run of spring-run chinook salmon in the Central Valley. In addition, fall-, and late-fall-run chinook salmon and steelhead trout exist in Butte Creek. As late as the 1960's, Butte Creek regularly supported over 4,000 adult spring-run chinook salmon, a lesser number of fall- and late-fall-run, and a small number of steelhead trout (Campbell and Moyle 1990). From the mid-1960's until 1995, the spring-run chinook populations have ranged from fewer than 200 adults to over 1,000 (CDFG 1998). This decline in numbers has resulted in the listing of spring-run chinook salmon **as *Threatened*** (Federal) and ***Endangered*** (State). The fall-run chinook salmon population varies between a few fish to **as** many as 1,000 (CDFG 1993). The decline of Butte Creek's chinook salmon and steelhead is attributed to inadequate flows, unscreened diversions, inadequate passage over diversion dams, unblocked agricultural return drains that attract and strand adult fish, poor water quality, declining availability of adequate spawning gravel and poaching. The major diversion dams and fish passage problems on Butte. Creek have been identified by numerous planning efforts (CDFG 1993, JSA 1998, USFWS, 1997) and fish ladders and screens have been installed on several major diversions between the Butte Sink and Chico (Ward, pers. comm.). Significant fish passage problems still exist on Butte Creek from the Butte Sink through the Sutter Bypass (Figure 1), and this proposal addresses one of these structures (top of figure). Under *this* proposal completion of a fish ladder, control gates and a high-flow spillway with CALFED/CVPIA funds will improve adult and juvenile fish passage at the Butte Creek/Sanborn Slough Bifurcation Structure.

b. Conceptual Model: The conceptual model being used assumes that the long-term decline in salmonid populations in the Sacramento-San Joaquin system is due primarily to human manipulation of the hydrologic conditions and geomorphic processes that effect salmon survival (Figure 2). This model assumes relatively stable conditions in the ocean rearing and growth portion of the salmon life-cycle and that improvements to migration and survival conditions for fish in the inland portion of their life-cycle will result in improved population numbers. Surveys conducted by the CDFG (CDFG 1998) show that spawning habitat in Butte Creek is under-utilized by the current average run of fish. The limiting factors in the population can now be reduced to adequate flows for migration and survival, predation of adult and juvenile fish, and to fish passage barriers that delay, injure, and prevent fish from reaching spawning habitat. Actions that minimize the effect of these factors ***should*** result in an increase in population for the target species. Actions for Butte Creek have been identified and prioritized in recent plans (CDFG 1993, CDFG 1998, USFWS 1997, USFWS 2000) and implementation is underway. This proposal encompasses one of these recommended actions and will contribute to species survival by reducing delay of adult migration (laddering) and by increasing survival of juveniles (high-flow spillway designed to reduce turbulence and thus, mortality). On the Healey Ladder of the Adaptive Management Process, this project falls under "Implement Large-Scale Restoration" and includes monitoring of the immediate conditions and effects of the new structure and long-term monitoring of fish populations in the watershed.

c. Hypothesis Being Tested: In accordance with the assumptions regarding limiting factors outlined in the conceptual model above, improvements to fish passage should result in greater survival of adult and juvenile fish thereby increasing the salmon population in Butte Creek. The null hypothesis to be tested is that there is no significant difference between the population of Butte Creek fish existing



Butte Creek/
Sanborn Slough
Bifurcation
Structure
RD 1004 Lift Pump
White Mallard
Dam
North Weir
End Weir
Butte
Sink
Pennington
Road
White
Mallard
Canal
Five Points Dam
White Mallard
Outfall
N. Butte
Road
Dinsdale
Slough Outfall
Morton Dam
RD 1004 Drain
Putnam Mound
Outfall
El Anser Weir
Butte Lodge Drain
Drivers Cut Weir
Butte Lodge
Main Drain
Colusa
Shooting
Weir
Colusa Bypass
Tarke Weir
SUTTER
BUTTES
West Butte Road
Butte Slough
Outfall Gates
Snake River
Morrison Slough
Pennington Road
Live Oak
99
70
Butte Canal
Sutter
Live Oak Slough
Sutter
45
20
Meridian
East-West
Diversion Weir
Long Bridge
Farmer's Weir
(Weir 5)
Butte Slough
Irrigation Co. Pump
Weir 4
Wadsworth Canal
Yuba City
DWR Pumping
Plant 3
Tarke Road
McGrath Road
Sutter NWR
Intake Canal
Weir 2
(Davis Weir)
Weir 3
Giusti Weir
and Intake
Sutter Bypass
Washington Blvd.
George
Road
Progress Road
Garmire Road
Weir 1
(Park's Weir)
RD 1660 Main
Pumping Plant
Tisdale Bypass
Tisdale Weir
Tisdale Rd.
RD 1660
Drain Pump
DWR Pumping
Plant 2
Pumping Plant 2
South Drain
Gilsizer Slough
Tudor
Tudor Road
Gilsizer Slough
Plug
Feather River
Reclamation
Sutter Causeway
West Borrow Canal
Match Line
Reclamation Drain
West Borrow Pit
Sutter Bypass
Feather River
Verona
Karnak
Sacto Slough
Fremont Weir

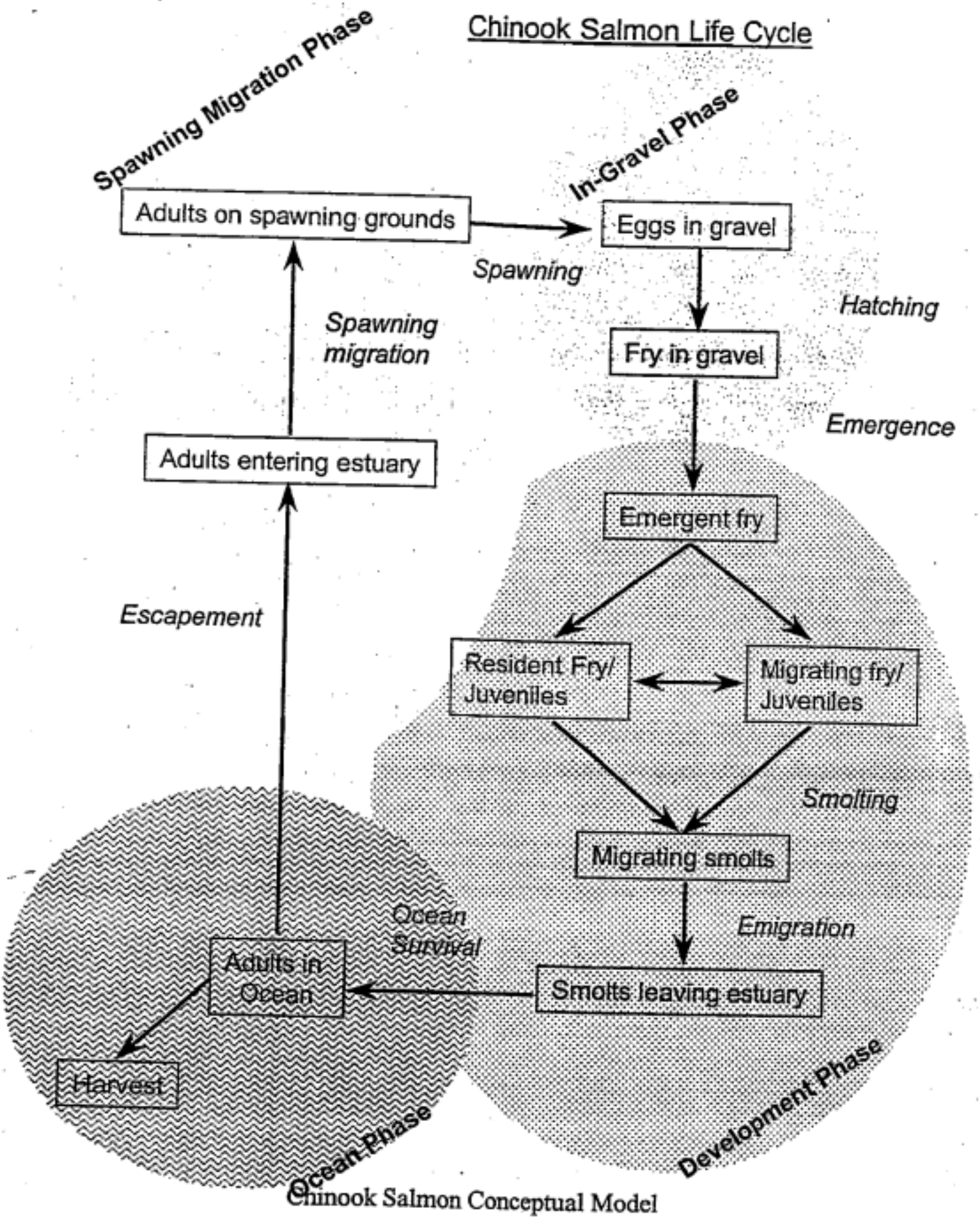

Chinook Salmon Life Cycle
Spawning Migration Phase
In-Gravel Phase
Adults on spawning grounds
Eggs in gravel
Spawning
Hatching
Spawning migration
Fry in gravel
Emergence
Adults entering estuary
Emergent fry
Escapement
Resident Fry/ Juveniles
Migrating fry/ Juveniles
Smolting
Migrating smolts
Ocean Survival
Emigration
Adults in Ocean
Smolts leaving estuary
Harvest
Ocean Phase
Development Phase
Chinook Salmon Conceptual Model

FIGURE 2

before the construction of fish passage improvements and after improvements have been completed. Baseline surveys of spawning adult salmon exist and yearly surveys will be continued (CDFG **1998).** In addition, surveys of juvenile survival and migration are being conducted at various locations throughout the watershed. Improvements to fish passage should have significant effects on populations as measured by these *two* sampling techniques. Results of spawning and juvenile surveys will be published periodically by CDFG and cooperating agencies. Fish passage at the completed structure will be evaluated and compared with unimpeded reaches, and hydraulic conditions will be measured to determine optimal settings of the control gates for fish passage.

d. Adaptive Management: Flows to improve fish passage in Butte Creek have been secured and significant improvements to fish passage barriers in the upper reaches of Butte Creek have been completed (JSA **1998,** USFWS 2000). A recent water exchange agreement requires **a** minimum of 40cfs of dedicated flows to be maintained in Butte Creek for fish passage. Fishing for salmon in Butte Creek has been prohibited. Laddering and screening of diversions has begun. Spawning surveys have indicated **a** significant increase in the population since **1995** (CDFG **1998,** USFWS 2000). These results indicate that completion of planned improvements in these areas may further improve fish population levels. Existing plans for the restoration of fish runs put high priority on fish passage improvements including the Butte CreeWSanborn Slough Bifurcation Structure. If these improvements are made, and no further increases in population levels are observed, further investigations regarding limiting factors in the population may be warranted. Augmentation of spawning habitat, instream flows, and harvest management may be required to meet the recovery goals of the AFRP and CALFED.

e. Educational Objectives: **This** project will increase understanding of CALFED and AFRP's goals by demonstrating that implementation of fish passage improvements ***can*** have ecosystem benefits as well as benefits to local water and land users. This approach to ecosystem restoration is the foundation of the Lower Butte Creek Project, and the Bifurcation Structure is the first project to be implemented since its inception in **1996.** Stakeholders and regulating agencies have been closely involved in all facets of planning and implementaion and will be using this project as a model of cooperation for similar projects throughout the entire Bay-Delta Watershed.

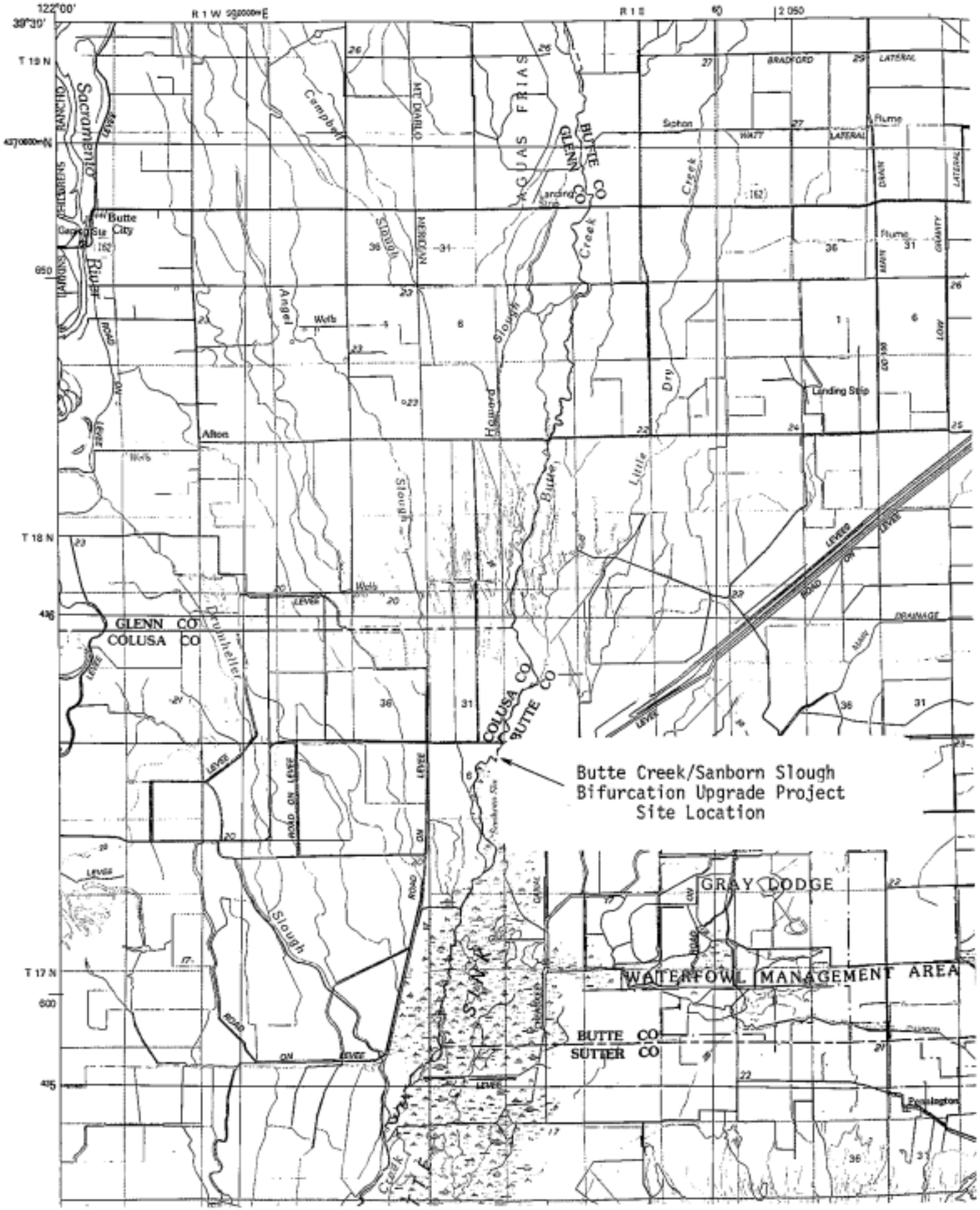
2. Proposed Scope **of** Work

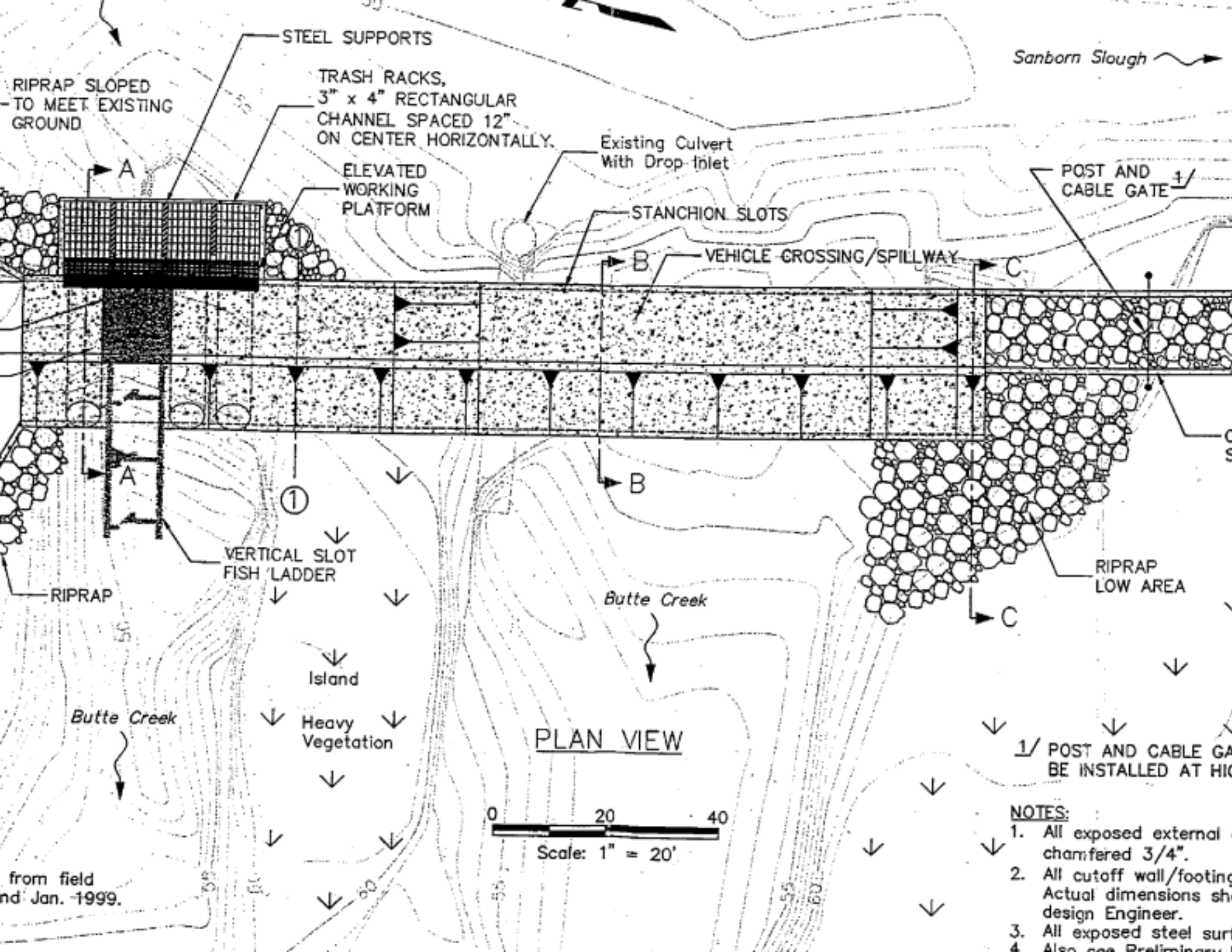
a. Location and Geographic Boundaries: The Butte Creek/Sanborn Slough Bifurcation Structure is located at the junction of Butte Creek and Sanborn Slough at the Butte County/Colusa **County** boundary in northern California (39° **21' N.** Lat., 121° 54' W. Long.) . This site is in the Butte Basin Ecological Zone (area 7.7: Butte Sink). The project site is approximately six miles east of the Sacramento River and less than one-quarter mile south of the Gridley/Colusa Highway (Figure **3).**

b. Approach This project is the next phase of a previously funded project. ,It is primarily **an** implementation project based on the studies and plans noted above. Planning and choosing structural alternatives took place during **1997** through early **1999.** During **1998** and **1999,** AFRP contracted with DWR to provide site characterization and preliminary engineering data and cost estimates for the fish ladder and control structure. Specific subtasks included 1) gather topographic data and develop a contour map of the site and associated waterways; 2) work with the established stakeholder committee to develop a design for a fish ladder and flow control structure at the site; **3)** prepare. p r e l i i

YUBA CITY, CALIFORNIA

Figure 3 **USGS** Quad map




STEEL SUPPORTS
TRASH RACKS, 3" x 4" RECTANGULAR CHANNEL SPACED 12" ON CENTER HORIZONTALLY.
RIPRAP SLOPED TO MEET EXISTING GROUND
Sanborn Slough
Existing Culvert With Drop Inlet
ELEVATED WORKING PLATFORM
POST AND CABLE GATE 1/
STANCHION SLOTS
VEHICLE CROSSING/SPILLWAY
A
B
C
VERTICAL SLOT FISH LADDER
RIPRAP
RIPRAP LOW AREA
Butte Creek
Island
Heavy Vegetation
PLAN VIEW
0 20 40
Scale: 1" = 20'
1/ POST AND CABLE GA
BE INSTALLED AT HI
NOTES:
1. All exposed external
chamfered 3/4".
2. All cutoff wall/footing
Actual dimensions sh
design Engineer.
3. All exposed steel sur
from field
nd Jan. 1999.

engineering design and cost estimates for the selected alternative; 4) evaluate environmental issues and start the permit process; and *5)* prepare a technical report that covers items 1 through 4. Items 1 through 5 have been completed and the technical report was used as the basis for receiving bids for final design, permitting and construction of the project. All of the cost estimates and bids received exceeded the available funding, so construction was broken into two phases, with priority on the fish ladder and control gates in phase 1, and the high-flow spillway and electrical controls in phase 2.

Construction of the high-volume fish ladder and control gates was completed by CWA in the summer of 1999 with emergency flood appropriations provided by SNWR. The second phase of construction can be completed in 2001, with hydrologic and fish passage monitoring extending through 2002 (Figure 4). All of these steps have been, and will continue to be, coordinated with the adjacent landowners, structure operators, regulating agencies, and funding agencies. Construction plans have been reviewed and approved by DWR, NMFS, SNWR and the stakeholders. Complete NEPA/CEQA documentation has been completed and permits and consultations acquired (Finding of no Significant Impact, and Mitigated Negative Declaration in Appendix). Construction will be conducted in accordance with environmental mitigation measures as detailed on the above noted documents and permits. Monitoring of the hydrologic and fish passage conditions will determine the optimal operational fish passage and water delivery settings for the various gate and ladder combinations available to the structure managers.

c. Monitoring and Assessment Plan: Monitoring and data collection will provide the information to evaluate the effectiveness of the Bifurcation Structure in reducing any fish passage problems at the site. Monitoring plans will generally need to include the following items: experimental design; target species and life stages; sampling season; sampling gear; parameters measured; sampling design and locations; data processing and analyses; and data storage and presentation. The Monitoring Plan will be developed and finalized during the period outlined below and will precede any collection of data Objectives and approach are summarized below.

Biological/Ecological Objectives There are two primary objectives of the monitoring task:

1) Determine if adult chinook salmon and steelhead are blocked or hindered in their upstream migration past the upgraded Bifurcation Structure and fish ladder.

2) Determine if design and operation of the Bifurcation Structure meet proposed hydraulic standards for fish passage.

Related questions, hypotheses, assumptions, issues, and limitations include:

- Do adult salmon and steelhead build up in large numbers below the new fish ladder?
- Are approaches to the ladder constructed in a manner allowing confident approach and detection of the ladder entrance by the fish?
- What are the optimal settings for structure controls under various **flows** that optimize fish passage at the structure.

Monitoring Parameters and Data Collection Approach Monitoring will consist of two components: adult salmon and steelhead passage and hydraulic assessment.

Adult Passage

Adult passage monitoring will consist of observations during key migration times under normal or controlled flow conditions when the structures are functional. (There is no need or capability to monitor during flood conditions.) Key times will be winter when spring-run chinook and steelhead ascend the river, late spring (usually in late May and early June) when late spring-run and early fall run appear in numbers, and in the fall (October into December) when fall-run chinook salmon ascend the river. Observations will consist of visual notes of fish concentrations at the ladder and downstream of the ladder, and how effectively the fish appear to approach and ascend the ladder with particular attention on their ability to detect the entrance to the ladder. Visual observations of fish passage will be recorded in notebooks and summarized by event, season, hydrology conditions, and operation conditions. Rate of travel past the structure and success of travel will be the primary parameters compared between unimpeded sections of the river and the project site. Data/progress reports will be prepared for each year of the study, and one overall adult fish passage report will be prepared at the completion of the study.

Hydraulic Assessment

Hydraulic assessment will consist of observations during key migration times under controlled flow conditions. Parameters will include velocity and flow measurements on the downstream side of the structure taken at various stage heights and structure configurations. Velocity and flow measurements gathered under various controlled-flow conditions will be compared with standard fish passage criteria for similar structures and correlated with observations of adult fish passage. These comparisons will allow the managers of the structure to configure the fish ladder and controls to optimize conditions for fish passage. Dadprogress reports will be prepared for each year of the study, and one overall hydraulic assessment report will be prepared at the completion of the study.

Table 1. Summary of Monitoring and Data Collection Information

I) Biological/Ecological Objectives: Reduce or eliminate delay and injury to Butte Creek adult salmon and steelhead at the Bifurcation Structure.			1
Hypothesis/ Question to-be **Evaluated**	Monitoring **Parameter(s)** and Data Collection Approach	Data Evaluation Approach	Comments/ Data Priority
Is adult salmon and steelhead passage hindered by the Bifurcation Structure?	Rate of passage of adult salmon and steelhead by observations of adult fish at the Bifurcation Structure and in unimpeded reaches.	Compare rate of migration of salmon and steelhead adults at Bifurcation Structure with unimpeded reaches.	Priority for sampling spring-run adults in late winter and early spring.
What hydraulic conditions and structure configurations significantly increase adult salmon and steelhead passage at the Bifurcation Structure?	Measure flow and velocities at various stage heights and structure configurations.	Compare velocities to published standards and structure configurations and correlate with rates of adult salmon steelhead passage.	Priority for sampliig spring-run adults in late winter and early spring.

d. Data Handling and Storage: Data handling and storage will be detailed in the Monitoring and Assessment plan prior to beginning data collection.

e. Expected Products/Outcomes:

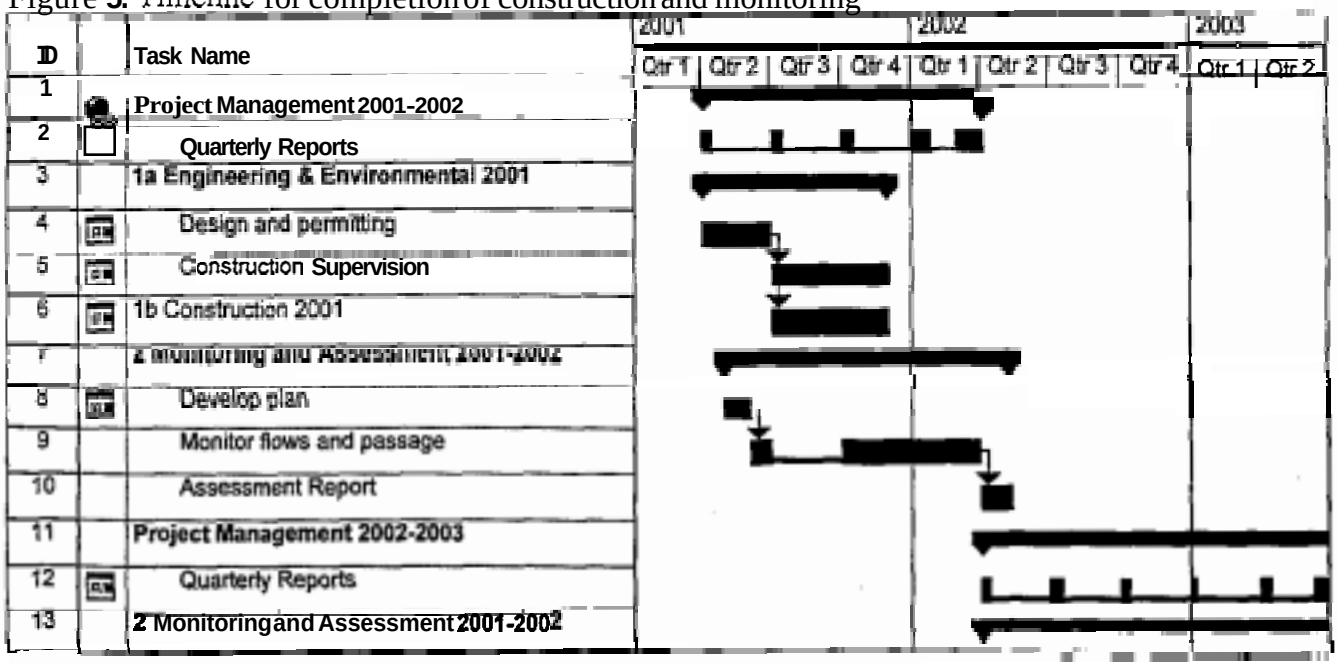
- Quarterly reports beginning 7/1/01 through 10/1/03 detailing task accomplishments and fiscal expenditures to funding agencies.
- Presentation of progress reports on semi-annual basis to local stakeholders including landowners, water user groups, and regulatory agencies.
- Presentation of progress reports at monthly Spring-run Workgroup meetings.

f. Work Schedule

Table 2. Summary of task schedules including start/completion dates and deliverables

Task	Start Date	Completion Date	Deliverables
Preliminary Engineering	11/1/98	5/31/99	Topographic maps (completed) Engineering Design (completed) Cost Estimate(completed) Environmental Review (completed)
Project Management	4/1/01	9/30/03	Facilitate Stakeholder involvement, Prepare Request for Proposals, Hire monitoring consultants, submit quarterly reports, ensure completion of deliverables under other tasks
Task 1. Final Design, Permitting and Construction	4/1/01	11/30/01	Final engineered design, securing of all necessary permits, construction of high flow spillway, controls.
Task 2. Monitoring and Evaluation	4/15/01	8/01/03	Developing a monitoring plan, Conducting the monitoring, and producing interim and final reports. .

Figure 5. Timeline for completion of construction and monitoring



g. Feasibility: The feasibility of completing the construction and monitoring of this project during the proposed timeline is extremely high. Planning efforts instituted in earlier phases of the project have gotten approval from the immediately affected stakeholders and regulating agencies. Prior to the first phase of construction, all required environmental documents and permits for both phases of the project were completed. These documents include: 1) Mitigated Negative Declaration/Finding of No Significant Impact (Joint CEQA Initial Study and NEPA Environmental Assessment dated August 6, 1999); 2) California Department of Fish and Game Streambed Alteration Agreement (Section 1603); 2) Clean Water Act sections 404,401 certification or waiver; 3) Section 7 consultation with USFWS/NMFS regarding listed species; and 4) National Historic Preservation Act Section 106 consultation. Access is guaranteed under an easement held by the SNWR and a letter appointing CWA as an agent of the SNWR dated March 16,2000 (see Appendix). Early approval of this proposal will give the consultant time to complete final design for the second phase of construction well before in-stream construction may begin (July 15). Construction is planned for low-water periods (July 15 – November 15) and flooding or disruption of construction by high water is very unlikely. Construction will be completed in time to complete all 'erosion control measures and access road refinishing before the seasonal rains begin. A complete project timeline is presented in Figure 5.

The structure is owned by RD 1004 and will be operated under an existing agreement between RD 1004, the SNRW, the BSWA and Erik Foraker (owns property .adjacent to the structure). These operators will ensure' adequate fish passage and optimal flows as determined by the monitoring and assessment' funded under this proposal.

End of Section

Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities

1. ERP Goals and CVPIA Priorities : The proposed project would provide benefits that are consistent with the goals and objectives of (1) the CALFED Ecosystem Restoration Program Plan and Conservation Strategy; and (2) the CVPIA-Anadromous Fish Restoration Program. Goals and objectives of these programs addressed by the proposed project include the following:

- Restore anadromous fish populations of Butte Creek.
- Reduce stressors on fish and wildlife and their habitats.
- Develop community awareness of the linkage between agricultural viability and natural resource protection.
- Develop alternatives to protect and restore floodplain resources and reduce stressors.
- Develop alternatives to maintain and enhance agricultural economic viability in concert with habitat and floodplain restoration activities.
- Provide technical information and flood control consistency analysis methods that can be applied to other similar areas.

The project objectives are consistent with the following ERPP fish passage objective: ***"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek"*** ***(ERPP Volume II, page*** 272). The proposed project is also consistent with the ERPP high priority Stage 1 Action for Butte Creek ***"STAGE 1 ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens." (ERPP Volume II, page*** 272). The project objectives are also consistent with the following objectives listed for Butte Creek in the Revised Draft Restoration Plan for the AFRP: May **30,** 1997: "Action #22: ***Establish operational criteria for Sanborn Slough Bifurcation".***

2. Relationship to Other **Ecosystem** Restoration Projects

This project is directly related to other ecosystem restoration projects in the Butte Creek Watershed and indirectly related to other ecosystem restoration projects' throughthe Bay-Delta Watershed. Significant improvements for fish passage in the Butte Creek Watershed have been accomplished through CALFED and CVPIA actions within the last **10** years. A minimum of 40 cfs instream **flow** below Centerville Diversion Dam has been dedicated for fish passage from October through June of each year. High volume fish ladders and screens have been constructed at Parrott-Phelan, Adams, and Gorrill clams. The McPherrin and McGowan dams have been removed, and the Western Canal Siphon has been constructed. With these improvements in place, the focus on improving fish passage has shifted to the lower reaches. The Bifurcation Structure **is** the first of many dams and diversions to be upgraded or removed as part of the Lower Butte Creek Project. AFRP **has** funded stakeholder development, and altemative analysis for the Lower Butte Creek Project through CWA. AFRP .funded the preliminary engineering and environmental analysis of the Bifurcation Structure through DWR and is currently funding the Drumheller Slough Outfall Adult Exclusion Barrier construction, project coordination and facilitation through DU. CALFED and BOR are currently funding final engineering and permitting of fish passage improvements at numerous sites throughout the Lower Butte Creek Project area. This system-wide approach will ensure that fish will not navigate one barrier, only to be

obstructed by another barrier either upstream or downstream.

3. Requests for Next-Phase Funding

As noted above, this proposal is for the implementation phase of the Lower Butte Creek Project. A ***Summary of Efforts to Date*** is included in the Appendix to this proposal.

4. Previous Recipients of CALFED or **CVPIA** Funding

California Waterfowl Association was the recipient of a $243,000 grant from AFRP to fund watershed investigations, stakeholder development and alternatives formulation under the Lower Butte Creek Project, Phase 1b (FWS agreement # 11328J204). The project was administered through John Icanberry and the Sacramento/San Joaquin Estuary Fishery Resource Office in Stockton, CA. The Grant/Cooperative Agreement was officially closed on March 9,2000 after CWA submitted the Final Progress Report and Final Financial Status Report. Accomplishments of *this* project are detailed in the ***Summary of Efforts to Date*** in the Appendix. CWA is currently under contract through DU to provide services under a grant from CALFED/BOR/CVPIA to provide engineering, environmental documentation, permitting, and cooperative agreements for structures in the Butte **Sink** ($812,500). Competitive bidding has been completed and consultants have been selected for this project. Work is progressing according to schedule and completed bids for construction will be delivered by January 2001.

5. System-Wide Ecosystem Benefits

The new structure and gaging stations will allow more effective management and control of instream flows dedicated for fish and wildlife, specifically the 40 cfs acquired for instream use in Butte Creek **from** the M&T water exchange agreement. The control structure will also improve operations and maintenance and reduce long-term costs to the USFWS refuge and private wetland managers responsible for the operations of the Bifurcation Structure. The increased water management capabilities will enhance the habitat values of over 15,000 acres of managed wetland and agricultural habitats essential to a multitude of migratory and resident waterfowl, wading birds and other wetland-dependent wildlife. These lands include the Butte Sink National Wildlife Refuge, Butte Sink Wildlife Management Area, and numerous private wetlands and agricultural lands managed to provide food, cover, and refuge for wildlife.

End of Section

Qualifications

CWA is the project manager under contract to SNWR construction of the Bifurcation Structure and chairs the ***Butte Sink Action*** **Commitfee** for the Lower Butte Creek Project. The Wetland Department of CWA has extensive experience in managing construction projects relating to water resources and wetland habitat developments in California. With an annual gross budget exceeding $6,000,000 per year and a staff of 35 individuals, CWA is well qualified to handle multi-task habitat projects. Staff in the Wetland, Waterfowl, Government Affairs, and Finance Departments are available to support this project and bring it to completion.

Project Management: Rob Capriola, CWA Assistant Director of Wetland Programs. Mr. Capriola came to work for CWA **as** a waterfowl habitat biologist in the spring of 1997. His duties include coordinating the restoration and enhancement of wetlands on federal and state wildlife areas and duck clubs throughout the north Central Valley including lands within the Butte Sink and Sutter Bypass. **Mr.** Capriola came to CWA with six years of experience in fisheries and wetland project management and a Masters Degree in Natural Resource Management from Humboldt State University. Prior to his work with CWA, **Mr**. Capriola worked **as** a wetland biologist for Humboldt Bay National Wildlife Refuge and was President and Co-founder of Pacific Coast Restoration, a private non-profit organization that implements fisheries and wetland restoration and enhancement projects on the north coast of California. He has been involved in the Lower Butte Creek Project since it's inception in 1997, and is currently the CWA Program Manager for the project.

Mr. Capriola will be responsible for all project management, coordination, and facilitation duties. Specific subtasks include: 1) ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders; DWR, CDFG, and USFWS; 2) hire consultants and contractors to complete the project design, permitting, construction, and monitoring for the project; **3)** coordinate reimbursement for work completed with funding agencies and service providers; 4) develop access and operations agreements among the stakeholders; and 5) provide interim and final reports to the stakeholders and funding agencies on the project. As project manager, he will plan, schedule, over-see, and document all project activities, including contract services support and oversight. This task was initiated in October 1998 and **is** contracted to continue through December 2003, **as** necessary.

Engineering Design, Construction Supervision, and Construction These tasks will be completed by the joint venture created between Borcalli and Associates (BA), and Ray Toney Associates (RTA). BA is an engineering consulting firm located in Sacramento California and was established by Francis E. Borcalli in 1988 as a California corporation. Prior to establishing B&A, Mr. Borcalli has over 24 years experience in water resources development and management at local; state, federal and international levels of government as well **as** with the private sector. B&A's specialized expertise in water resources projects includes canals, drains, floodways, hydraulic structures, pipelines, pumping plants and hydropower plants. B&A's capability and experience can be exemplified by citing the following recent projects:

- Durham Mutual Water Company, Ltd. fish screen and fishway project
- Rancho Esquon (Adams) Dam fish screen and fishway project
- Sacramento River Pumping Plant for the Princeton-Codura-Glenn and Provident Irrigation Districts

- Suisun Marsh Fish Screen Project for the Suisun Resource Conservation District
- Lower Joice Island Fish Screen Project for the Suisun Resource Conservation District
- Sacramento River Pumping Plant for the Maxwell Imgation District
- Colusa Basin Drain Siphon Project for the Maxwell Imgation District

RTA is owned and managed by Ray E. Toney, a Registered Professional Civil Engineer. The company is capable of taking a project from the initial concept phase though design, construction, operation and maintenance phases. During the past fifteen years, RTA has performed most of the work on over $80 million of hydroelectric construction, an $885,000 electric substation, **$4** million in EPA projects, and $36.5 million in irrigation pumping facilities.

End of Section

cost

Budget Narrative (See **Table 3)**

Task 1. Final Design, Permitting, and Construction
Through a competitive-bid process, CWA selected BA/RTA to provide these services in two phases, as funding allowed. Under a $1,000,000 contract from the SNWR, CWA and BA/RTA completed the final design, permitting, and construction of the fish ladder and control gates during the summer of 1999. Subtasks for completion of the high-flow spillway and remote operation and flow measurement devices with CALFED/CVPIA funds during 2001 include:

a. Engineering and Environmental Services ($65,000 Year 1). Services provided include: performing engineering services required for final design to complete the structure, securing all permitting requirements for the project, hiring of subcontractors to build the structure, and performing construction management and oversight of subcontractors.

b. Construction ($775,000 Year 1). Services provided include de-watering, excavation, compaction of fill, concrete and steel work, electrical services and remote operation software for the high-flow spillway and motorized controls of the headgates.

.CWA will charge overhead on these service contracts up to a maximum rate of 9%. Total Cost of Task 1 is $915,600.

Task 2. Monitoring and Assessment
CWA will contract with a fisheries consultant to monitor fish passage at the structure. Selection of subcontractor will be made through a competitive bid process beginning in February 2001. Subtasks include:

a. Develop a monitoring and evaluation plan in coordination with stakeholders prior to beginning data collection. ($2,000 Year 1)

b. Monitor flows and adult passage at the completed structure to determine optimum settings of control gates for fish passage and provide interim and final reports to stakeholders. This task is scheduled to begin in April, 2001 and will be completed by October 2002 ($13,000 Year 1, $20,000 Year 2).

CWA will charge overhead on these service contracts up to a maximum rate of 9%. Total cost for Task 2 in Year 1 is $16,350; Year 2 total is $21,800.

Table **3.** Budget Table for Phase 2 Construction and Monitoring of the Bifurcation Structure

			Subject to Overhead						
Year	Task	Direct Labor Hours	Salary $25/hr	Benefits 20%	Travel $.315/mi	Supplies & Expendables	Service Contracts	Overhead (9%)	Total Cost
Year 1	Task 1								
2001	Subtask 1a						$65,000	$5,850	$70,850
	Subtask 1b						$775,000	$69,750	$844,750
	Task 2								
	Task **2a**						$2,000	$180	$2,180
	Task 2b						$13,000	$1,170	$14,170
	Project Management	800	$20,000	$4,000	$2,000	$300		$2,367	$28,667
Total Cost Year 1			$20,000	$4,000	$2,000	*$300*	$855,000	$79,317	$960,617
Year 2									
2002	Task 2b						$20,000	$1,800	$21,800
	Project Management	500	$12,500	$2,500	$800	$331		$1,452	$17,583
Total Cost Year 2			$12,500	$2,500	$800	$331	$20,000	$3,252	$39,383
Total Project Cost			$32,500	$6,500	$2,800	$631	$875,000	$82,569	$1,000,000

Project Management, Coordination, and Facilitation

CWA is the project manager for the Bifurcation Upgrade Project. Duties include:

- Ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders; DWR, CDFG, and SNWR,
- Hire consultants and contractors to complete the project design, permitting, construction, and monitoring for the project;
- Coordinate reimbursement for work completed with funding agencies and service providers;
- Develop long-term access and operations agreements among the stakeholders;
- Provide interim and final reports to the stakeholders and funding agencies on the project.

A CWA **staff** person will manage the project **at** varying degrees of intensity over the life of the project. The project coordinator will plan, schedule, over-see, and document all project activities, including contract services support and oversight. The coordinator will also guarantee the preparation of all

communications, reports, and deliverables for the project. This task was initiated in October 1998 and is contracted to continue through December 2000 by the USFWS, but may be extended as necessary to oversee construction and monitoring for CALFED/CVPIA. Direct labor hours required during Year 1 are estimated at 800 at a rate of $25/hr., benefits at 20%, travel at $0.315 / mile, and $300 in office supplies, meeting support materials and field protective equipment. Year 1 total, including overhead for this task is $28,667. Year 2 expenses are estimated at **500** hours of direct labor, and benefits, $800 in travel, $331 in supplies and expendables. Year 2 total expenses for this task equal $17,583, including overhead.

Cost-Sharing

This table summarizes previous and current efforts at planning fish passage improvements to the Bifurcation Structure and other sites within the Lower Butte Creek Project area.

Table 4. Cost-share components on the Bifurcation Structure Upgrade project and the Lower Butte. Creek Project

Project Component	Date	Funding Source	Amount
Phase I Existing conditions investigations & alternatives analysis	April 1997 to Sept. 1999	AFRP Tracy Mitigation	$364.000
Phase II Engineering Design and Permitting/Cooperative Agreements	Oct. 1999 to June 2001	AFRP, BOR Tracy Mitigation, CALFED	$1,796,400
Phase III Construction & Monitoring			
Bifurcation Structure, Phase 1	Oct. 1998 to Jan. 2000	AFRP, SNWR	$1,067,000
Drumheller Slough Exclusion Barrier	Oct. 1998 to Jan 2000	AFRP	$200,000
Bifurcation Structure Phase 2,	**Feb. 2001 to Dec. 2003**	**Grant Request**	**$1,000,000**
		Total Cost	$4,427,400
		Partner Contributions	$3,427,400
		Grant Request	**$1,000,000**

Acronyms

AFRP - Anadromous Fish Restoration Program (Central Valley Project Improvement Act)
BOR – Bureau of Reclamation
SNWR – Sacramento National Wildlife Refuge-1997 Emergency Flood Supplemental
CALFED - California-Federal Bay/Delta Program-Directed Action
Tracy Mitigation – California Water Project Mitigation Fund

End of Section

Local Involvement

California Waterfowl Association, the Nature Conservancy, Ducks Unlimited, the Butte Sink Waterfowl Association, Foraker Properties, and Reclamation District 1004 have worked closely together over the past three years in planning the upgrade of structures with local, state and federal resource agencies. These parties have also been involved in every aspect of planning and implementing the Bifurcation Project, including choosing CWA as contract manager for the project, developing and choosing structural components to be built, choosing the contractor, and overseeing construction. Local support for the completion of this structure is high because it is the first major structure to be addressed in the Lower Butte Creek Project, and is seen as a milestone to be completed before other structures in the Butte Sink can be upgraded.

An operations agreement for the Bifurcation Structure has been in place since 1995, and an updated operations agreement to accommodate dedicated fish flows is being developed among the parties to the original agreement. Additionally, CWA is facilitating a ***Cooperative Management Agreement*** (also funded by CALFED) between the landowners within the Butte Sink to identify responsible parties and operating guidelines for additional structures.

Compliance with Standard Terms and Conditions

The Applicant has reviewed and understands the standard terms contained in Attachments D (State) and E (Federal) that were included in the ERP 2001 Proposal Solicitation Package, and agrees to comply with these state and federal standard terms.

Literature Cited

Campbell, E. A., and P. B. Moyle. 1990. Historical and recent population of spring-run chinook salmon in California. Pages 155-216 in: Proceedings, 1990 Northeast Pacific Chinook and Coho Salmon Workshop.

CDFG (California Department of Fish and Game). 1993. Restoring Central Valley Streams: a plan for action. Inland Fisheries Division Sacramento.

CDFG (California Department of Fish and Game). 1998. A status review of the spring-run chinook salmon in the Sacramento River drainage. Candidate species status report 98-01.

JSA (Jones and Stokes Associates, Inc). 1998. Lower Butte Creek Project final project report. June 30, 1998 (JSA 97-248). Sacramento, Calif. Prepared for the Nature Conservancy, Sacramento, Calif.

USFWS (U.S. Fish and Wildlife Service). 1997. Revised draft restoration plan for the anadromous fish restoration program. May **30,** 1997. Prepared for the Secretary of the Interior by the U.S. Fish and Wildlife Service with assistance from the Anadromous Fish Restoration Program Core Group. Stockton, calif.

USFWS (U.S. Fish and Wildlife Service). 2000. Draft Programmatic Environmental Assessment for Anadromous Fish Restoration Actions in the Butte Creek Watershed. Prepared for the Sacramento-San Joaquin Estuary Fishery Resource Office, U.S. Fish and Wildlife Service. Stockton, Calif. by the Sacramento Fish and Wildlife Office. U.S. Fish and Wildlife Service. Sacramento, Calif.

Threshold Requirements

(Follow this page in order)

Letters of Notification
Environmental Compliance Checklist
Land Use Checklist
Nondiscrimination Compliance
Bidders Bond
Non-Collusion Affidavit
Proof of Contractor's License
Standard Form **424**

California WATERFOWL

Conserving California's waterfowl, wetlands, and waterfowling heritage

Robcn Capriola
Assistant Director. Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 931-9182

David Kelley
Colusa County Planning Director
220 12'' ST.
Colusa, CA 95932

May 13.2000

Dear Mr. Kelley.

I have enclosed copies of two proposals our organization is submitting to CALFED under the May proposal solicitation. The projects include upgrading the Butte Creek/Sanborn Slough Bifurcation Structure and completing design permitting and bidder's assistance for the White Mallard Dam and Associated Diversions. The Bifurcation project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek; Butte County has also been notified. The engineering studies and permits will allow improvements to diversion structures to improve fish passage for lands west of Butte Creek near the Butte Sink. I have also sent a similar package *to* Colusa County Planning Division

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail: robcap@inreach.com.

Sincerely,
Robert Capriola

California Waterfowl Association

4630 Northgate **Blvd.**
Suite 150
Sacramento, CA 95834

TEL: **(916)** 648-1406
FAX: (916) 648-1665

California WATERFOWL

Conserving California's waterfowl, wetlands, and waterfowling heritage.

Robert Capriola
Assistant Director. Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 934-9182

Cathleen Moran
Colusa County Clerk to the Board of Supervisors
546 Jay St.
Colusa, CA 95932

May 13.2000

Dear Ms. Moran.

I have enclosed a copy of two proposals our organization is making to CALFED under the May proposal solicitation. The projects include upgrading the Butte Creek/Sanborn Slough Bifurcation Structure and completing design, permitting and bidder's assistance for the White Mallard Dam and Associated Diversions. The Bifurcation project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek Butte County has also been notified The engineering studies and permits will allow improvements to diversion structures to improve fish passage for lands west of Butte Creek near the Butte Sink I have also sent a similar package to Colusa County Planning Division

Please feel free to call me if you have any questions about the project. I can also be reached via e-mil: rokav.@.uueacll.com.

Sincerelv.

R Capriola
obert Capriola

California Waterfowl Association

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL: (916) 648-1406
FAX: (916) 648-1665

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Robert Capriola
Assistant Director. Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows. CA 95988
(530) 934-9182

Marion Reeves
Butte County Clerk to the Board of Supervisors
25 County Center Drive
Oroville, CA 95965

May 13,2000

Dear Ms. Reeves,

I have enclosed a copy of a proposal our organization is making to CALFED for upgrading the Butte Creek/Sanborn Slough Bifurcation Structure. The project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek Colusa County has also been notified. I have also sent a similar package to Tom Parillo in the Butte County Planning Division.

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail:

Sincerely,

Robert Capriola

California Waterfowl Association

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL: (916) 649-1406
FAX: (916) 648-1665

California WATERFOWL

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Robert Capriola
Assistant Director. Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows. CA 95988
(530) 931-9182

Tom Parillo
Planning Division
Butte County
7 County Center Drive
Oroville, CA 95965

May 13,2000

Dear Mr. Parillo,

I have enclosed a copy of a proposal our organization is making to CALFED for upgrading the Butte Creek/Sanborn Slough Bifurcation Structure. The project will complete a structure that was partially built during 1999 with *flood* appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek, Colusa County has also been notified. I have also sent a similar package to the Butte County Clerk for the Board of Supervisors.

Please feel free to call me if you have any questions about the project. I *can* also be reached via e-mail: robcap@inreach.com.

Sincerely,

Robert Capriola

California Waterfowl Association

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL (916) 648-1406
FAX: (916) 648-1665

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding ***Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.***

1. **Do** any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), **or** both?

   .X
   YES _____ NO

2. If you answered yes to # **1,** identify the lead governmental agency for CEQA/NEPA compliance

   CEQA- Reclamation District 100.4, NEPA- USFWS Sacramento National Wildlife Refuge
   Lead Agency

3. If yon answered no to # **I,** explain why CEQMNEPA compliance is not required for the actions in the proposal.

4. If CEQMNEPA compliance is required, describe how the project **will** comply with either **or** both of these laws. Describe where the project is in the compliance process and the expected date of completion.

   A joint Initial Study/Environmental Assessment completed and FONSI/ mitigated negative declaration signed in 1999. Copy of Document Attached to Proposal

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities io the proposal?

   X
   YES _____ NO

   If **yes,** the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field **locations** have not **been** identified will be required'to provide access needs and permission for access with ***30*** days of notification of approval.

   Access letter. i.s attached to the Proposal

6. Please indicate what permits or other approvals may he required for the activities contained in your proposal. Check all boxes that apply.

LOCAL		
Conditional use permit	—	
Variance	—	
Subdivision Map Act approval	—	
Grading permit	X	
General plan amendment	—	
Specific plan approval	—	
Rezone	—	
Williamson Act Contract cancellation	—	
Other _____ (please specify)		
None required	—	
CESA Compliance	X	(CDFG)
Streambed alteration permit	X	(CDFG)
CWA § **401** certification	X	(RWQCB)
Coastal development permit	—	(Coastal Commission/BCDC)
Reclamation Board approval	—	
Notification	—	(DPC, BCDC)
Other _____ (please specify)		
None required	—	
FEDERAL		
ESA Consultation	X	**(USFWS)**
Rivers & Harbors Act permit	X	**(ACOE)**
CWA § **404** permit	X	**(ACOE)**
Other _____ (please specify)		
None required	—	

DPC = Delta Protection Commission
CWA = Clean Water Act
CESA = California Endangered Species **Act**
USFWS = U.S. Fish and Wildlife Service
ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = **Regional** Water Quality Control Board
BCDC= Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding ***Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.***

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

   X
   YES _____ **NO** _____

2. **If** NO to # **1,** explain what type of actions are involved in the proposal (i.e., research only, planning only).

3. If **YES** to # **1,** what **is** the proposed land use change **or** restriction under the proposal?

   Minor grading around the construction site.. Area to be affected is under 1/2 acre immediately adjacent to building site.

4. If YES to # **1,** is the land currently under a Williamson Act contract?

   _____ **YES** X **NO**

5. **If YES** *to* # **1,** answer the following:

   Current land use — Natural riparian habitat
   Current zoning
   Current general plan designation

6. **If YES to #1,** is **the** land classified **as Prime** Farmland, Farmland of Statewide Importance **or** Unique Farmland on the Department of Consenfation Important Farmland Maps?

   _____ **YES** X **NO** _____ **DON'T KNOW**

7. **If YES** to # **I,** how many acres **of** land will **be** subject **to** physical change **or** land use restrictions under the proposal?
   1/2 acre or less

8. If **YES** to # **1,** is the property currently being commercially farmed **or** grazed?

   _____ **YES** X **NO**

9. If **YES** to #8, what are the number **of** employees/acre _____
   the total number of employees _____

10. Will the applicant acquire any interest in land under the proposal (fee title **or** a conservation easement)?

YES ____ NO X

11. What entity/organization **will** hold the interest? Reclamation District 1004

12. If YES to # 10, answer the following:

Total number **of** acres to be aquired under proposal ____
Number of acres **to** be acquired in **fee** ____
Number of acres to be subject to conservation easement ____

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property — Reclamation District 1004

provide operations and maintenance services — Reclamation District 1004

conduct monitoring — Reclamation District 1004/ Fisheries Consultants

14. **For** land acquisitions (fee title or easements), **will** existing water rights also be acquired?

YES ____ NO ____

15. **Does** the applicant propose any modifications to the water right or change in the delivery **of** the water?

YES ____ NO X

16. If **YES** to # **15,** describe ____

STATE OF CALIFORNIA

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

COMPANY NAME: California Waterfowl Association

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME: M. Robert McLandress, PhD.

EXECUTED: 5-12-00

EXECUTED IN THE COUNTY OF: Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE: M. Robert McLandress

PROSPECTIVE CONTRACTOR'S TITLE: President

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME: California Waterfowl Association

DOCUMENT **00430**

BIDDER'S BOND

STATE OF CALIFORNIA

DEPARTMENT OF WATER RESOURCES

Know All Men by *These* Presents,

mat we PACIFIC ENGINEERING CONTRACTORS AND RAY TONEY & ASSOCIATES

..... as PRINCIPAL. and

NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

as SURETY, ere held and firmly bound unto the State of California in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID *of* the Principal above named. submitted by said Principal *to* the State of California. acting by and through the Department of Transportation. the Department of Water Resources, or the Department of General Services. as the *case* may be, for *the* work described below. for the payment of which sum in lawful money of the United States, well and truly to *be* made. *to* the Director of *the* Department to which said bid was submitted. we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no *case* shall the liability of the surety hereunder exceed the sum of $ TEN PERCENT (10%) OF THE TOTAL AMOUNT BID - - - -

THE CONDITION OF THIS OBLIGATION IS SUCH.

That whereas the Principal has submitted the above-mentioned bid *to* the State *of* California, as aforesaid, for certain construction specifically described as follows, for which bids are *to* be opened at

Colusa, CA California, on May 15, 2000

(Insert only, name of city where bid will be opened) (Insert date of bid opening)

for Butte Creek/Sanborn Slough Bifurcation Structure Replacement Project, Phase II

(Copy here the exact description of work, including location, as it appears on the proposal)

NOW, THEREFORE. If *the* aforesaid Principal is awarded the contract and. within the time and manner required under the specifications, after the prescribed forms are presented to it for signature. enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Department, one *to* guarantee faithful performance and the other to guarantee payment for labor and materials. as required by law. then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF. We have hereunto set our hands and seals on *this* 10th day of May, A.D. 2000

PACIFIC ENGINEERING CONTRACTORS AND RAY TONEY & ASSOCIATES

By _____
Contractor

NATIONAL UNION FIRE INSURANCE COMPANY COMPANY OF PITTSBURGH, PA
Name of Surety

By _____
Swan Lee, Attorney-in-Fact

(Seal)

Address. 121 Spear St., San Francisco, CA 94105

Telephone No. (415) 836-2700

NOTE: Signatures of those executing for the surety must be properly acknowledged.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

tate of California

County of San Francisco

)n May 10,2000 before me, Cynthia L. Lewis, Notary Public

ersonally appeared - - - - - - - - - - - - - -Swan Lee -

personally known to me - **OR** -

☐ proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature of Notary

American Home Assurance Company
National Union Fire Insurance Company of Pittsburgh, Pa.
Principal Bond Office 70 Pine Street, New York, N.Y. 10270

POWER OF ATTORNEY

No. 03-B-54650

KNOW ALL MEN BY THESE PRESENTS:

That American Home Assurance Company, a New York corporation, and National Union Fire Insurance Company of Pittsburgh, Pa., a Pennsyivania corporation, does each hereby appoint

---Terry J. Moughan, Jack M. Woodruff, Cynthia L. Lewis, Donna M. Gergurich, Susan Gannuscio, Janet C. Rojo, Thomas J. Gallagher, Swan Lee: of San Francisco, California—

its true and lawful Attorney(s)-in-Fact, with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa. have each executed these presents

this 3rd day of February, 2000.

Lawrence W. Carlstrom, Senior Vice President
National Union Fire Insurance Company of Pittsburgh, PA.
Vice President, American Home Assurance Company

STATE OF NEW YORK }
COUNTY OF NEW YORK }ss.

On this 3rd day of February, 2000 before me came the above named officer of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa., to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporations thereto by authority of his office.

JOSEPH B. NOZZOLIO
Notary Public, State of New York
No. 01-NO4652754
Qualified in Westchester County
Term Expires Jan. 31, 2002

CERTIFICATE

Excerpts of Resolutions adopted by the Boards of Directors of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa. on May 18, 1976:

"RESOLVED, that the Chairman of the Board, the President, or any Vice President be, and hereby is, authorized to appoint Attorneys-in-Fact to represent and act for and on behalf of the Company to execute bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, and to attach thereto the corporate seal of the Company, in the transaction of its surety business;

"RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company when so affixed with respect to any bond, undertaking, recognizance or other contract of indemnity or writing obligatory in the nature thereof;

"RESOLVED. that any such Attorney-in-Fact delivering a secretarial certification that the foregoing resolutions still be in effect may insert in such certification the date thereof, said date to be not later than the date of delivery thereof by such Attorney-in-Fact."

I, Elizabeth M. Tuck, Secretary of American Home Assurance Company and of National Union Fire Insurance Company of Pittsburgh, Pa. do hereby certify that the foregoing excerpts of Resolutions adopted by the Boards of Directors of these corporations, and the Powers of Attorney issued pursuant thereto, are true and correct, and that both the Resolutions and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of each corporation

this 10th day of May 2000

Elizabeth M. Tuck, Secretary

65166 *(4199)*

RAY TONEY & ASSOCIATES

Mailing Address - P. O. BOX 492140 • REDDINC. CA 96049-2140
Shipping Address - 19766 COLLYER DRIVE • REDDING. CA 96003

Phone: (530)241-6691
Fax: (530) 241-6699

Pacific Engineering Contractors/Ray Toney & Associates, JV contract amount for the Butte Creek/Sanborn Slough Replacement Project Phase II:

$ 894,545.00

State of California
The Resources Agency
Department of Water Resources

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO RE EXECUTED BY BIDDER AND SUBMITTED WITH RID FOR PUBLIC WORKS

STATE OF CALIFORNIA)
)ss
COUNTY OF Shasta)

Mark Trawick (name), being **first** duly sworn, deposes and says that he or she is General Manager (position title) of Ray Toney & Associates (the hiddcr), the party making the foregoing bid that the **bid is** not made in the interest of, ***or*** on behalf of, any undisclosed person. partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly **or** indirectly induced or solicited any other bidder to put in **a** false sham hid, and has not directly or indirectly colluded, conspired. connived, or agreed with **any bidder** or anyone else ***to*** put in a sham hid, **or** thatanyonoshallrefrainfrom bidding; Chat the bidder **has** not in any manner, directly or indirectly, **sought** by agreement, communication. or conference with anyone to fix the bid price of the bidder or **any** other bidder, or to **fix** any overhead, profit, or cost element of the bid **price,** or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; **that** all statements contained **in** the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his **or** her bid price or any breakdown thercof, **or** the contents thereof, **or** divulged information **or** data relative thereto, or **paid,** and will not **pay,** any fee to any corporation. partnership, company, association, organization, bid depository, or to any member **or** agent thereof to **effectuate** a collusive or sham bid.

UATED 5/11/00

By _____ (person signing for hiddcr) (person signing for bidder)

MELANIE GARLOFF
COMM. # 1217571
NOTARY PUBLIC-CALIFORNIA
SHASTA COUNTY
COMM. EXP. APRIL 30, 2003

(Notarial Seal)

Subscribed and **sworn** *to* before me on May 11, 2000

_____ (Notary Public)

DWR 4206 (New 4/90)

State of California
CONTRACTORS STATE LICENSE BOARD
ACTIVE LICENSE

License Number 734909 Type JV

Business Name PACIFIC ENGINEERING CONTRACTORS AND RAY TONEY & ASSOCIATES

Classification(s) A B

Expiration Date 04/30/2001

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval NO. 0348-0043

2. DATE SUBMITTED: May 15, 2000		Applicant Identifier
3. DATE RECEIVED BY STATE		Slate Application Identifier
4. DATE RECEIVED BY FEDERAL AGENCY		Federal Identifier

..TYPE OF SUBMISSION

Application: [X] Construction [ ] Non-Construction

Preapplication: [ ] Construction [ ] Non-Construction

. APPUCANT INFORMATION

.?gal Name: California Waterfowl Association

Organizational Unit:

ddress *(give city, county, Slate, and zip code):*

4630 Northgate Blvd. Suite 150
Sacremento, CA 95834

Name and telephone number of person to be contacted on matters involving this application *(give area code)*

. EMPLOYER IDENTIFICATION NUMBER *(EIN):*

9 4 – 1 1 4 9 5 7 4

. TYPE OF APPUCATION

[X] New [ ] Continuation [ ] Revision

Revision, enter appropriate letter(s) in box(es) [ ] [ ]

A. Increase Award B. Decrease Award C. Increase Duration
O. Decrease Duration Other *(specify):*

7. TYPE OF APPLICANT: *(enter appropriate letter in box)* [ ]

A. State H. Independent School Dist.
B. County I. State Controlled Institution of Higher Learning
C. Municipal J. Private University
D. Township K. Indian Tribe
E. Interstate L. Individual
F. Intermunicipal M. Profit Organization
G. Special District N. Other (Specify) Non-Profit org.

, NAME OF FEDERAL AGENCY:

3. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: XX – XXX

TITLE

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

Butte Creek/Sanborn Slough Sifurcation Upgrade Project

2. AREAS AFFECTED BY PROJECT *(Cities, Counties, Slates, etc.):*

Colusa, Butte Counties, California

3. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF: Congressional District #3	
art Date	Ending Date	a. Applicant	b. Project

5. ESTIMATED FUNDING:		
		$1,000,000
Federal	$	$1,000,000
Applicant	$	
State	$	
Local	$	
Other	$	
Program Inwme	$	
TOTAL	$	$1,000,000

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. [X] PROGRAM IS NOT COVERED BY E. 0.12372
[ ] OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPUCANT DELINQUENT ON ANY FEDERAL DEBT?

[ ] Yes If "Yes," attach an explanation. [X] No

. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN MIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE OCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPUCANT AND THE APPUCANT WILL COMPLY WITH THE TTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

Type Name of Authorized Representative	b. Title	c. Telephone Number
M. Robert McLandress	President	(916) 648-1406

Signature of Authorized Representative: M. Robert McLandress

e. Date Signe: 5/12/00

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'Standafd Form 424 (Rev. 7-97)
Prescribed by OMB Circular A-102

OMB Approval No. 0348-00

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	$ 125,000.00	$ .00	$ 125,000 .00
2. Land, structures, rights-of-way, appraisals, etc.	$ .00	$ .00	$ .00
3. Relocation expenses and payments	$ .00	$ .00	$ .00
4. Architectural and engineering fees	$ 65,0000	$ .00	$ 65000 .00
5. Other architectural and engineering fees	$ .00	$ .00	$ .00
6. Project inspection fees	$ .00	$ .00	$ .00
7. Site work	$ .00	$ .00	$ .00
8. Demolition and removal	$ .00	$ .00	$ .00
9. Construction	$ 775,000' 00	$ .00	$ 775,000 .00
10. **Equipment**	$ .00	$ .00	$ .00
11. **Miscellaneous** Monitoring	$ 35,000 .00	$ .00	$ *35,000* .00
12. **SUBTOTAL** *(sum of lines 1-11)*	$ .00	$ .00	$ .00
13. Contingencies	$ .00	$ .00	$ .00
14. SUBTOTAL	$ .00	$ .00	$ .00
15. Project (program) income	$ .00	$ .00	$ .00
16. TOTAL PROJECT COSTS *(subtract #15 from #14)*	$ 1 000 000 .00	$ .00	$ 1,000,000 .00

FEDERAL FUNDING

17. **Federal assistance reauested. calculate as** follows: **(Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.**	**Enter eligible costs from line** 16c **Multiply X** 100 %	$ 1,000,000 .00

OMB Approval No. 0348-0042

ASSURANCES - CONSTRUCTION PROGRAMS

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property aquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.

4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.

5. Will provide and maintain competent and adequate engineering supervision at the construction Site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.

6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin: (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 5794). which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made: and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

12. Will comply with the provisions of the Hatch Act *(5* U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. $874). and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.

14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution *of* environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1912 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973. as amended (P.L. 93-205).

16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
M. Robert McLaughlin	President
APPLICANT ORGANIZATION	DATE SUBMITTED
California Waterfowl Association	5/15/00

SF-424D (Rev. 7-97)Back.

APPENDIX

Summary of Efforts to Date
Access Letter from FWS
Photographs
Mitigated Negative Declaration
Finding of No Significant Impact

SUMMARY OF EFFORTS TO DATE LOWER BUTTE CREEK PROJECT

GOAL:" The Lower Butte Creek Project is a stakeholder-driven, grassroots effort that has focused on developing mutually beneficial and acceptable alternatives to improve fish passage while maintaining the viability of agriculture, seasonal wetlands and other habitats. This creek has one of the largest runs of spring-run chinook in the Central Valley, as well as fall-run chinook and steelhead. Butte creek also supplies water to thousands of acres of agricultural lands and managed wetlands that greatly benefit resident and migratory wildlife including vast numbers of waterfowl, shorebirds, and neotropical songbirds. Significant wetland habitats within the project area include over 20,000 acres of privately managed riparian wetlands in the Butte Sink Wildlife Management Area. The U.S. Fish and Wildlife Service also manages the Butte Sink National Wildlife Refuge and Sutter National Wildlife Refuge using Butte Creek water. Improvements to fish passage in the upper watershed have already been accomplished at sites between Chico, California and the Butte ***Si .*** A number ***of*** studies and planning processes (Central Valley Project Improvement Act-Anadromous Fish Restoration Program, Lower Butte Creek Project, California Department of Fish &Game Report on Spring-Run Chinook) have identified significant barriers to fish passage in the lower reaches of the creek, including the Butte CreeWSanbom Slough Bifurcation Structure and 12 other major diversion structures. The proposed project will replace these structures with modern structures that include fish ladders for adult passage and screens to prevent juvenile salmonids from being entrained in pumps and agricultural fields. These Structures are essential for maintaining managed wetlands and flooded agricultural habitats required by the large numbers of wintering waterfowl and shorebirds that inhabit the Butte Sink and associated areas.

PROJECT *AREA* Butte Creek from the Gridley-Colusa Highway on the north to Verona, near the confluence of the Feather and Sacramento Rivers on the South.

PHASE I Existing Conditions Report September 1997 through June 1998:

- Initiated by: The Nature Conservancy and California Waterfowl Association
- Funded by: California Department of Fish and Game and US Fish and Wildlife Service Anadromous Fish Restoration Program.
- Consultant: Jones and Stokes Associates.

Accomplishments:

- Developed stakeholder groups to guide the process
- Gathered information on existing conditions
- Developed draft alternatives for improving fish passage and water delivery
- Developed evaluation considerations for choosing alternatives
- Published Final Project Report June 30,1998

PHASE lb Alternatives Analysis September 1997 through October 1999.

- Funded by: Anadromous Fish Restoration Program.
- Administered by: California Waterfowl Association.
- Consultants: Ducks Unlimited and Jones and Stokes Associates.

Accomplishments-Refined project alternatives for the following areas:

- Butte Creek and Sanbom Slough channel cross-section and capacity analysis
- Evaluation of fish passage conditions in the Butte Sink

- Evaluation of alternative Butte Creek water diversion sites and conveyance routes for Butte Sink west of Butte Creek.
- Butte Slough Outfall gates analysis
- Analysis of water control structures at the East-West Diversion Weir and Weir 5
- Analysis of Sutter Bypass/West Borrow Canal below Weir 5
- Assessment of water use, seasonal demands, timing, and management in the east-side Sutter Bypass

Butte Creek/Sanborn Slough Bifurcation Upgrade Project October 1998 to December 2000

- First fish passage improvement project to be funded and implemented in the Lower Butte Creek Project area.
- Initial funding of $1 million through the Sacramento National Wildlife Refuge
- Administered by California Waterfowl Association
- Fish ladder and control structures completed December 1,1999.
- High-flow spillway, power controls, and remote sensing to be constructed in year 2001, pending funding of $1,000,000 additional cost.

Phase 2 Engineering and Permitting September *1999* through May 2001

- Engineering design and permitting on preferred structural alternatives.
- Funded by: CALFED, US Bureau of Reclamation, Anadromous Fish Restoration Program
- Administered by: Ducks Unlimited
- Consultants: California Waterfowl Association, Jones and Stokes Associates, Montgomery Watson, Ensign and Buckley, Borcalli and Associates, additional consulting engineering firms.

Structures to be included:

- North and End Weirs on the Wild Goose Club
- White Mallard Dam and associated diversions
- Morton/Mile Canal/Field and Tule Weir Complex
- Driver's Cut Outfall
- Colusa Shooting/Tarke Weir Outfall
- East/West Diversion Weir
- Weirs 5, 3, and 1 in the Sutter Bypass
- Lift Pumps/Diversions on Butte Creek/Butte Slough/Sutter Bypass

Cooperative Management Agreement-Butte Sink January *2000* through May 2001

- Phase 1b analysis of fish passage in Butte Sink identifies Butte Sink as valuable rearing habitat for juvenile salmonids.
- CALFED funded plan for cooperative management to benefit fish passage to be completed June, 2001
- This agreement between the wetland operators in the Butte Sink will ensure that the system is operated to maximize the benefits to fish and wetland dependent wildlife.

Phase 3 Construction

- Drumheller Slough Exclusion Structure funded by AFRP through CWA. To be constructed in summer 2000 by Ensign and Buckley, Consulting Engineers.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento National Wildlife Refuge Complex
752 County Road 99W, Willows, California 95988

IN REPLY REFER TO:

March 16, 2000

Ms. Elena Slagle
California Waterfowl Association
4630 Northgate Blvd., Suite 150
Sacramento, CA 95834

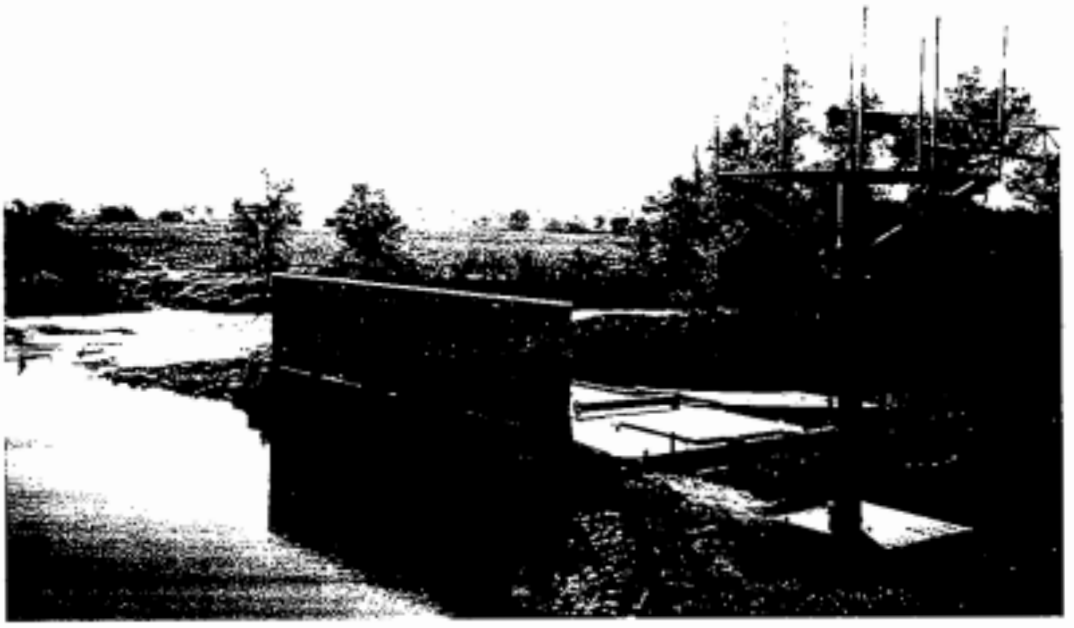
Dear Ms. Slagle:

This letter is to confirm that the California Waterfowl Association (CWA), acting as a representative of the U.S. Fish and Wildlife Service (Service) in the completion of the Bifurcation Dam Replacement Project, is granted access to the Bifurcation Dam following the provisions of the Grant of Easement document number 96-028506, recorded in the Official Records, County of Butte, July 31,1996. As an agent of the Service, CWA is bound by the terms and conditions of the Easement.

Sincerely,

Kevin S. Foerster
Refuge Manager

MAR 2 0 2000



BUTTE CREEK/SANBORN SLOUGH BIFURCATION STRUCTURE 11/16/99
Headgates and fish ladder constructed in Summer, 1999

BUTTE CREEK/SANBORN SLOUGH BIFURCATION STRUCTURE 11/16/99
High-flow spillway looking south down Sanborn Slough
Butte Creek flows to the right in this picture

Reclamation District #1004
Mitigated Negative Declaration

BUTTE CREEK BIFURCATION STRUCTURE REPLACEMENT PROJECT

The following improvements are proposed for the Butte Creek Bifurcation Structure located at the junction of Butte Creek and Sanborn Slough on the Butte County/Colusa County boundary in northern California.

1) Replace existing headgate, culverts, and part of the cobble and earth-fill structure. Replace the existing flow control structure with an improved concrete flow control structure with a new vertical slot fish ladder. The new structure would have three 72-inch-diameter culverts fixed at the current streambed invert elevation and controllable headgates powered by electric motors, operated locally or remotely by radio communication. The headgates would be operated to provide fish passage through the culverts or the fish ladder.

2) Construct concrete spillway at the elevation of the existing spillway so that moderately high flows would be spilled to Butte Creek. .

3) Install trash racks in front of the culverts and fish ladder.

4) Construction would be performed in 1999 and 2000. Phase 1, proposed to take place between August and October 1999, includes the fish ladder and culverts. Phase 2, proposed to take place in summer of the year 2000, includes the motor control centers and the spillway.

DETERMINATION

An initial study (IS) has been prepared for the proposed project. On the basis of this study, it is determined that the appropriate environmental document for the proposed project is a mitigated negative declaration (MND). Mitigation measures have been incorporated as project commitments into the project description to ensure that no adverse effects would occur. The proposed project would not have an adverse effect on the environment for the following reasons:

- The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

- The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

- The project does not have impacts that are individually limited, but cumulatively considerable.

- The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

BASIS FOR FINDING

Based on the attached initial study and environmental assessment, short-term significant impacts on Butte Creek water quality and anadromous fish during construction have been identified.. The following avoidance measures will be implemented to reduce or eliminate any residual environmental effects:

- Implement a storm water pollution prevention plan as part of the National Pollutant Discharge Elimination System General Construction Activity Storm Water Permit. The storm water pollution prevention plan will include measures to minimize erosion and sediment transport to Butte Creek.

- Limit inchannel construction to the summer low-precipitation period (July 1-October 15).

- Implement a toxic materials control and spill response plan.

- Store hazardous substances in staging areas located at least 100 feet from streams and other surface waters.

- Stake the limits of the construction footprints in the field. Restrict disturbance of riparian and wetland resources to the minimum required to complete the action.

- Construction personnel will participate in a worker environmental awareness program.

- If buried cultural materials are unearthed during construction, the contractor will halt construction work near the find until a qualified archeologist can assess its significance.

Therefore, the proposed mitigated negative declaration is filed pursuant to Section 15072 of the Guidelines for the Implementation of the California Environmental Quality Act.

All comments or questions should be directed to :

Gary Bailey
RD #1004
134 5'' Street
Colusa, CA 95932

June 25, 1999

Gary Bailey . Date
Reclamation District #1004

Finding of No Significant Impact

BUTTE CREEK BIFURCATION STRUCTURE REPLACEMENT PROJECT

The U.S. Fish and Wildlife Service (USFWS) proposes to fund the replacement of a bifurcation structure located at the juncture of Butte Creek and Sanborn Slough on the Butte County/Colusa County boundary in northern California. The following improvements are proposed:

1) Replace existing headgate, culverts, and part of the cobble and earth-fill structure. Replace the existing flow control structure with an improved concrete flow control structure with a new vertical slot fish ladder. The new structure would have three 72-inch-diameter culverts fixed at the current streambed invert elevation and controllable headgates powered by electric motors, operated locally or remotely by radio communication. The headgates would be operated to provide fish passage through the culverts or the fish ladder.

2) Construct concrete spillway at the elevation of the existing spillway so that moderately high flows would be spilled to Butte Creek.

3) Install trash racks in front of the culverts and fish ladder.

4) Construction would be performed in 1999 and 2000. Phase 1, proposed to take place between August and October 1999, includes the fish ladder and culverts. Phase 2, proposed to take place in summer of the year 2000, includes the motor control centers and the spillway.

Alternatives

Alternatives to the proposed action include: 1) take no action (No-Action Alternative), and 2) replace existing culvert and screw gate. The No-Action alternative was not selected because it would'not improve anadromous fish passage or avoid entrainment, and would not contribute to increased fish production. The proposed action was selected over the partial replacement alternative because of concerns regarding delays to adult salmonid migration without a fish ladder. Also, under this'alternative, diversions of water for wetland habitats may be threatened by regulatory action caused by the inability of the structure to provide fish passage under all conditions.

Anticipated Impacts/Benefits

Implementation of the proposed project is anticipated to result in the following environment effects:

- Beneficial effects on anadromous fish due to increased fish passage through the fis ladder and better control over **flows** through the culverts.
- Short-term impacts on Butte Creek water quality during construction due to potenti wind and water erosion, and, potentially, release of hazardous substances.

Mitigation Measures

Based on the attached initial study and environmental assessment, short-term significa impacts on Butte Creek water quality and anadromous fish during construction have been identifie The following avoidance measures will be implemented to reduce or eliminate any residu environmental effects:

1. Implement a storm water pollution prevention plan as part of the National Pollutai Discharge Elimination System General Construction Activity Storm Water Permit. The stor water pollution prevention plan will include measures to minimize erosion and sedimei transport to Butte Creek.
2. Limit in channel construction to the summer low-precipitation period (July 1-October 15
3. Implement a toxic materials control and spill response plan.
4. Store hazardous substances in staging areas located at least 100 feet from streams and othe surface waters.
5. Stake the limits of the construction footprints in the field. Restrict disturbance of riparia and wetland resources to the minimum required to complete the action.
6. Construction personnel will participate in a worker environmental awareness program.
7. If buried cultural materials are unearthed during construction, the contractor will ha construction work near the find until a qualified archeologist can assess its significance.

Agency Coordination

The following agencies were involved in the preparation of environmental documentatic and permits for the action.

Federal

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service

State

California Department of Fish and Game
Central Valley Regional Water Quality Control Board
California State Historical Preservation Office

Local

Colusa County

Therefore, it is my determination that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment. As such, an environmental impact statement is not required. An environmental assessment has been prepared in support of this finding and is available on request.

Mr. Michael Spear
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8/10/99
Date